

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended) A permanent magnet reluctance motor comprising:

a stator having an armature coil;

a rotor configured for providing magnetic irregularities in a circumferential direction wherein the rotor includes permanent magnets in a plurality of permanent magnet embedding holes within a rotor core wherein a magnetic flux of an armature passing through between adjacent magnetic poles is canceled, and wherein the rotor further includes non-magnetic regions on a circumferential side of said permanent magnets between said magnetic poles; and

AZ
a plurality of projections configured to fix positional location of said permanent magnets, the plurality of projections configured to project into said permanent magnet embedding holes within said core of said rotor.

2. (Amended) The permanent magnet reluctance motor of claim 1, wherein said projections for positional location of said permanent magnets are provided on opposite edges of said permanent magnet embedding holes of edges of said non-magnetic regions.

3. (Amended) The permanent magnet reluctance motor of claim 1, wherein said projections for positional location of said permanent magnets are provided on edges of said permanent magnet embedding holes on sides of said non-magnetic regions.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

4. (Amended) The permanent magnet reluctance motor of claim 1, wherein said projections for positional location of said permanent magnets are provided so as to project towards centers of said permanent magnet embedding holes into recesses corresponding to said projections.

5. (Amended) The permanent magnet reluctance motor of claim 1, wherein a length of a side where said permanent magnet and said projection for positional location of said permanent magnet make contact is 5% to 75% of said length of a side of said permanent magnet.

6. (Amended) The permanent magnet reluctance motor of claim 1, wherein a centrifugal force on said permanent magnet is supported by a face intersecting a direction of magnetization of said permanent magnet at right angles and on an opposite side of said permanent magnet embedding hole to a side of the non-magnetic region.

7. (Amended) The permanent magnet reluctance motor of claim 1, wherein a radiussed portion of a root of said projection for positional location of said permanent magnet is provided on a side of a face intersecting a direction of magnetization of said permanent magnet at right angles and on an opposite side to a side of said non-magnetic region.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

8. (Amended) The permanent magnet reluctance motor of claim 1, wherein a length in a circumferential direction of a circumferential-side thin-wall region of said permanent magnet embedding hole in said rotor core is no more than 450% of a thickness of said thin-wall region in a radial direction.

9. (Amended) The permanent magnet reluctance motor of claim 8, wherein a thickness in a radial direction of said circumferential-side thin-wall region of the permanent magnet embedding hole in said rotor core is at least 0.5 mm.

AL
Con'd

10. (Amended) The permanent magnet reluctance motor of claim 1, wherein a length in a radial direction of a bridge region between adjacent permanent magnet embedding holes in said rotor core is no more than 450% of a thickness in a circumferential direction of a bridge region on a side nearest a center.

11. (Amended) The permanent magnet reluctance motor of claim 10, wherein a thickness on the side nearest the center in a circumferential direction of said bridge region between adjacent permanent magnet embedding holes in said rotor core is at least 0.5 mm.

REMARKS

Reconsideration of the present application is respectfully requested in light of the above amendments to the application and in view of the following remarks. Prior to entry of this amendment, Claims 1-11 were pending in the application, of which Claim 1

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com